

APPARATUS AND METHOD FOR PASSIVE ADAPTIVE FLYING HEIGHT CONTROL IN A DISC DRIVE

Abstract of the Disclosure

An apparatus for adapting flying height of a read/write head over a disc due to changes in temperature in a head disc assembly in a disc drive. The head disc assembly has a base plate and a top cover which encloses a drive motor, the disc supported thereon, and an actuator assembly which transfers data to and from the disc. The actuator assembly has an actuator arm and a suspension having one end connected to a slider carrying the head and an opposite end connected to the actuator arm. At least one shape memory alloy segment is attached to the suspension for moving the slider between a contracted state away from the disc when temperature within the head disc assembly increases and a relaxed state near the disc when temperature within the head disc assembly decreases.